

Appl. No. 10/668,147

Response to Office Action (September 26, 2005)

IN THE CLAIMS

1. (Currently Amended) An acoustic composite construction comprising:
a low density core material having a flat first side and a flat second side opposing the flat first side;
a first flat outer face sheet of rigid face material bonded to the flat first side with a visco elastic adhesive; and
a second flat outer face sheet of rigid face material bonded to the flat second side with a visco elastic adhesive.
2. (Currently Amended) The acoustic composite construction of claim 1 wherein the first flat outer face sheet and the second flat outer face sheet each comprise resin impregnated fiber.
3. (Currently Amended) The acoustic composite construction of claim 2 wherein the first flat outer face sheet and the second flat outer face sheet each comprise a plurality of layers of resin impregnated fiber mat.
4. (Original) The acoustic composite construction of claim 2 wherein the resin impregnated fiber comprises graphite epoxy.
5. (Canceled)
6. (Original) The acoustic composite construction of claim 1 wherein the low density core material comprises a material having a thickness of about one quarter wavelength of a dominant frequency to which the acoustic composite construction may be exposed.
7. (Original) The acoustic composite construction of claim 6 wherein the low density core material comprises a material having a thickness of about 15-16 cm.

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8. (Canceled)

9. (Currently Amended) An acoustically damped launch vehicle fairing comprising:

a low density core material having a flat first side and a flat second side opposing the flat first side;

a first rigid flat outer face sheet;

a second rigid flat outer face sheet; and

a bonding material bonding the first rigid flat outer face sheet to the flat first side and bonding the second rigid flat outer face sheet to the flat second side, the bonding material selected to allow the first rigid flat outer face sheet to move relative to the second rigid flat outer face sheet.

10. (Original) The acoustically damped launch vehicle fairing of claim 9 wherein the low density core material comprises a low density core material having a thickness equal to a quarter wavelength of a dominant acoustic frequency to which the fairing will be subjected.

11. (Canceled)

12. (Currently Amended) The acoustically damped launch vehicle fairing of claim 9 wherein the first rigid flat outer face sheet comprises a resin impregnated fiber mat.

13. (Currently Amended) The acoustically damped launch vehicle fairing of claim 12 wherein the first rigid flat outer face sheet comprises graphite epoxy.

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14. (Currently Amended) An acoustically damped launch vehicle fairing comprising:

a low density core material having a thickness approximately equal to a quarter wave length of a dominant acoustic frequency to which the fairing will be subjected;

a first rigid flat outer face sheet comprising a plurality of layers of resin impregnated fiber mat;

a visco elastic material bonding the first rigid flat outer face sheet to a flat first side of the low density core material;

a second rigid flat outer face sheet comprising a plurality of layers of resin impregnated fiber mat; and

a visco elastic material bonding the second rigid flat outer face sheet to a flat second side of the low density core material, the flat second side opposing the flat first side.

15. (Canceled)

16. (Original) The acoustically damped launch vehicle fairing of claim 14 wherein the resin impregnated fiber mat comprises a graphite epoxy.

17. (Canceled)